Comparison the effect of Conjugated Linoleic acid supplementation with placebo in treatment of moderate acne in women

Introduction: Acne vulgaris is a chronic disease of Pilosebaseous units.In some conditions,it may seriously affect skin and cause dermatological and psychological problems.Some studies indicate the decrease of linoleic acid level in the sebum of acne patients.So linoleic acid may have a role in the development of acne,particularly with the effet on oxidative stress and inflammatory processes.The aim of this study was to determine the probable therapeutic effects of linoleic acid in the treatment of acne.

Materials and Methods: In a double-blind randomized clinical trial, 40 women with moderate acne were random studied in two groups. In the first group, doxycycline was administered, 100 mg daily with 3 gr Conjugated linoieic acid and the second group was given doxycycline, 100 mg daily with placebo 3 gr for 30 days.Treatment evaluation was conducted by ASI and GAGs.

Results: A number of 20 subjects were recriited in each group of this study .Average age in conjugated linileic acid group was 22/8 ± 5/5,and in placebo group was 22/7 ± 5/1.There was no statistically significant difference(p=0/51).

Average rate of acne based on GAGs in the beginning of study in acid linoleic group was 23/9 ± 0/7 and at the end of the treatment was reduced to 15/7 ± 0/9.This rate in group of placebo was 28/8 ± 0/7 in the beginning of study and was reduced to 67/6 ± 11/6 at the end of study. There was no statistically significant difference (p=0/31)

ASI in the beginning of treatment in linoleic acid group was 129/5 ± 13 and at the end of treatment was reduced to 77 ± 11/6.

ASI in the beginning of treatment in Placebo group was 132 ± 18/6 and at the end of study was reduced to 67/6 ± 11/6.There was no statistically significant difference (p=0/37)

Conclusion: Using Oral Conjugated linoleic acid,3 gr daily makes no significant reduction in comparison with Placeboin acne lesions.

Keywords: Acne vulgaris, Conjugated linoleic acid, ASI, GAGs